

Listing of Claims

The following list of claims will replace all prior versions and listings of claims in the application.

1-7. (Canceled)

8. (Currently Amended) A stable aqueous solution consisting essentially of

(a) a sphingolipid;

(b) lactic acid; and

(c) ~~optionally a stabilizing agent~~ an alcohol or mannitol;

said solution having a molar ratio of lactic acid to sphingolipid of 1:1 to 10:1.

9. (Currently Amended) A reconstitutable composition produced by the process of lyophilizing a solution of claim 8 ~~[[1]]~~.

10. (Canceled)

11. (Currently Amended) A reconstitutable composition produced by the process of lyophilizing a solution of ~~claim 10~~ comprising safinol stabilized in lactic acid, wherein a molar ratio of lactic acid to L-threo-dihydrosphingosine or safinol is about 3.5:1 to about 4:1, safinol is present in an amount of about 2.5 to about 5.0 mg/ml, the solution further comprising ethanol in an amount of about 20 mg/ml or mannitol in an amount of about 5 mg/ml.

12. (Canceled)

13. (Currently Amended) A method of treating cancer in a subject in need thereof, comprising administering to the subject a treatment effective amount of a solution of claim 8 ~~[[1]]~~, wherein said cancer is selected from the group consisting of leukemia, lymphoma,

neuroblastoma, lung cancer, skin cancer, prostate cancer, colon cancer, breast cancer, ovarian cancer, cervical cancer, brain cancer, and pancreatic cancer.

14. (Original) The method of claim 13, wherein the sphingolipid is selected from the group consisting of sphingosine, dihydrosphingosine, D-threo-dihydrosphingosine, L-threo-dihydrosphingosine, DL-threo-dihydrosphingosine, lysosphingolipids, combinations thereof and pharmaceutically acceptable salts thereof.

15. (Canceled)

16. (Original) The method of claim 13, wherein the solution is administered orally or parenterally.

17. (Original) The method of claim 13, wherein the solution is administered parenterally.

18. (Original) The method of claim 13, wherein the solution is administered intravenously.

19. (Original) The method of claim 13, wherein the subject is a human or animal subject.

20. (Original) An emulsion formulation consisting essentially of:

(a) lactic acid;

(b) a sphingolipid, wherein the sphingolipid is present in an amount of about .1 to about 30 mg/ml of solution;

(c) optionally an isotonic agent; and

(d) a phospholipid present in an amount of about 0.2 to about 200 mg/ml of emulsion.

21. (Original) The emulsion of claim 20, wherein the sphingolipid is selected from the group consisting of sphingosine, dihydrosphingosine, D-threo-dihydrosphingosine, L-threo-dihydrosphingosine, DL-threo-dihydrosphingosine, lysosphingolipids, combinations thereof and pharmaceutically acceptable salts thereof.

22. (Original) The emulsion of claim 21, wherein the sphingolipid is L-threo-dihydrosphingosine or safingol.

23. (Original) The emulsion of claim 20, wherein the aqueous medium is water.

24. (Original) The emulsion of claim 20, wherein a molar ratio of lactic acid to sphingolipid is about 1 to about 10:1.

25. (Original) The emulsion of claim 20, wherein the isotonic agent is glucose.

26. (Original) The emulsion of claim 20, wherein the phospholipid is selected from the group consisting of phosphatidylcholine, phosphatidylethanolamine, phosphatidylserine, phosphatidylinositol, phosphatidylglycerol, phosphatidic acid, lysophospholipid, egg phospholipid, soybean phospholipid and combinations thereof.

27. (Original) The emulsion of claim 20, wherein the mean particle size of the emulsion is less than about .03 microns.

28. (Original) The emulsion of claim 20, wherein the emulsion has a shelf-life of at least six months at a temperature from about 2°C to about 8°C.

29. (Original) A method of making an emulsion comprising a sphingolipid stabilized in an aqueous medium, comprising:

(a) dissolving the sphingolipid in a dilute lactic acid solution, wherein the sphingolipid is present in an amount of about .1 to about 30 mg/ml of solution;

(b) optionally adding an isotonic agent; and

(c) adding a phospholipid to the product resulting from (a) or (b) to thereby form said emulsion.

30. (Previously Presented) A method of treating cancer in a subject in need thereof, comprising administering to the subject a treatment effective amount of an emulsion of claim 20, wherein said cancer is selected from the group consisting of leukemia, lymphoma, neuroblastoma, lung cancer, skin cancer, prostate cancer, colon cancer, breast cancer, ovarian cancer, cervical cancer, brain cancer, and pancreatic cancer.

31. (Original) The method of claim 29, wherein the sphingolipid is selected from the group consisting of sphingosine, dihydrosphingosine, D-threo-dihydrosphingosine, L-threo-dihydrosphingosine, DL-threo-dihydrosphingosine, lysosphingolipids, combinations thereof and pharmaceutically acceptable salts thereof.

32. (Original) The method of claim 29, wherein the phospholipid is selected from the group consisting of phosphatidylcholine, phosphatidylethanolamine, phosphatidylserine, phosphatidylinositol, phosphatidylglycerol, phosphatidic acid, lysophospholipid, egg phospholipid, soybean phospholipid and combinations thereof.

33. (Original) The method of claim 30, wherein the cancer is selected from the group consisting of leukemia, lymphoma, neuroblastoma, lung cancer, skin cancer, prostate cancer, colon cancer, breast cancer, ovarian cancer, cervical cancer, brain cancer, and pancreatic cancer.

34. (Original) The method of claim 30, wherein the emulsion is administered orally or parenterally.

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35. (Original) The method of claim 30, wherein the emulsion is administered parenterally.

36. (Original) The method of claim 30, wherein the emulsion is administered intravenously.

37. (Original) The method of claim 30, wherein the subject is a human or animal subject.